

WHAT IS CLAIMED IS:

- 606
A1
1. An image processing apparatus comprising:
rendering means for rendering data in a first
color space and data in a second color space; and
5 a plurality of image forming means for forming
images in units of colors of the rendered image data.
2. The apparatus according to claim 1, wherein the
first and second color spaces are respectively RGB and
YMCK spaces.
- 10 3. The apparatus according to claim 1, wherein the
plurality of image forming means form Y, M, C, and K
images.
4. The apparatus according to claim 1, further
comprising:
15 conversion means for converting the data in the
first color space into data in the second color space,
and
wherein said image forming means forms an image
based on one of data rendered in the second color space
20 by said rendering means and data converted by said
conversion means.
5. The apparatus according to claim 1, wherein said
rendering means performs band mapping of data if the
band mapping is possible.
- 25 6. The apparatus according to claim 5, wherein when
the band mapping is impossible in said rendering means,

said apparatus informs a host computer to which said apparatus is connected that the band mapping is impossible.

- 5 7. The apparatus according to claim 5, wherein when the band mapping is impossible in said rendering means, said apparatus processes data to have a format with which the band mapping is possible.
8. The apparatus according to claim 1, wherein said rendering means simultaneously renders a plurality of color data upon rendering data in the first color space, and renders a plurality of color data in turn upon rendering image data in the second color space.
- 10 9. The apparatus according to claim 1, wherein image formation using data in the second color space assures higher quality than image formation using data in the first color space.
- 15 10. An image processing method comprising:
the rendering step of rendering data in a first color space and data in a second color space; and
20 the image forming step of forming images of the rendered image data in units of colors.
11. A storage medium storing a program which comprising:
a code of the step of rendering data in a first
25 color space and data in a second color space; and

a code of the step of forming images of the rendered image data in units of colors.

12. An image processing apparatus comprising:

input means for inputting image data;

5 first and second rendering means for mapping and rendering the input image data;

conversion means for converting image data rendered in a first format by said first rendering means into a second format; and

10 selection means for selecting one of the image data in the second format converted by said conversion means, and the image data rendered in the second format by said first and second rendering means, on the basis of a format of the image data input by said input means.

15 13. The apparatus according to claim 12, wherein said selection means selects the image data in the second format converted by said conversion means when the image data input by said input means has the first format, and selects the image data rendered in the second format by
20 said first and second rendering means when the image data input by said input means has the second format.

14. The apparatus according to claim 13, further comprising print means for printing image data selected by said selection means on a recording medium.

25 15. The apparatus according to claim 14, wherein the second format can be processed by said print means.

16. The apparatus according to claim 15, wherein the second format is a YMCK format.
17. The apparatus according to claim 16, wherein the first format is an RGB format.
- 5 18. The apparatus according to claim 17, wherein said first rendering means performs one of rendering in units of R, G, and B color components and rendering in units of Y, M, and C color components in accordance with the format of the image data input by said input means.
- 10 19. The apparatus according to claim 18, wherein said second rendering means renders a K component.
20. The apparatus according to claim 14, wherein said first and second rendering means have, in units of colors:
 - 15 a plurality of holding means for holding image data in units of predetermined bands;
rendering data generation means for rendering image data in units of bands in one of said holding means; and
 - 20 rendering data output means for outputting image data in units of bands, which has already been rendered in the other of said holding means.
21. The apparatus according to claim 20, wherein said holding means hold bitmap data.
- 25 22. The apparatus according to claim 14, further comprising delay means for delaying the image data

converted into the second format by said conversion means in units of colors in accordance with said print means, and

wherein said selection means selects the image data in the second format delayed by said delay means when the image data input by said input means has the first format.

23. The apparatus according to claim 14, further comprising delay means for delaying the image data selected by said selection means in units of colors in accordance with said print means.

24. The apparatus according to claim 20, further comprising control means for predicting a rendering time of image data for one band by said first rendering means, and for, when the rendering time is shorter than a print time of image data for one band by said print means, controlling said print means to perform a print process.

25. The apparatus according to claim 24, wherein said input means inputs image data transferred from an external apparatus, and

said control means cancels a print process by said print means and informs the external apparatus that the print process is canceled, when the rendering time is not less than the print time.

26. The apparatus according to claim 25, wherein said control means informs the external apparatus that the

print process is canceled, and urges the external apparatus to transfer image data in the second format.

27. The apparatus according to claim 24, wherein said control means controls said first rendering means to
5 render image data in the first format when the rendering time is shorter than the print time, and controls said first and second rendering means to render image data in the second format when the rendering time is not less than the print time.

10 28. The apparatus according to claim 27, wherein said control means controls based on resolution of image data whether image data is rendered in the first or second format.

15 29. The apparatus according to claim 27, wherein said control means controls based on the number of gray levels of image data whether image data is rendered in the first or second format.

20 30. The apparatus according to claim 27, wherein said control means controls based on a delay amount of image data whether image data is rendered in the first or second format.

Add
AI